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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,391	04/28/2005	Kazuo Seki	05291/LH	3554

1933 7590 10/27/2006

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EXAMINER

THOMPSON, JEWEL VERGIE

ART UNIT PAPER NUMBER

2855

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/533,391	SEKI ET AL.	
	Examiner	Art Unit	
	Jewel V. Thompson	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10,-16,20 and 21 is/are allowed.
- 6) ☒ Claim(s) 1,4,8 and 9 is/are rejected.
- 7) ☒ Claim(s) 2,3,5-7 and 17-19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Jewel V. Thompson
JEWEL THOMPSON
PRIMARY EXAMINER

10/23/06

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/28/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

1. Acknowledgement is made of the Information Disclosure Statement filed April 28, 2005, which has been made record of and placed in the file.

Priority

2. Acknowledgement is made of the Priority filed April 28, 2005, which has been made record of and placed in the file.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Auphan et al (3,604,263).

Regarding claim 1, Auphan et al teaches a main path through which a fluid runs (1); one or a plurality of branch paths (5) each having an opening end portion that is formed in the vicinity of an inner wall surface of the main path so as to point to an

upstream or downstream side of the main path (fig. 1), and causing part of a fluid flowing in the vicinity of the inner wall surface of the main path to run therethrough via the opening end portions (col. 1, lines 72-73); and a thermal flow sensor (12) that is disposed in the branch path and detects a flow of the fluid running through the branch path (col. 2, lines 39-49).

Regarding claim 4, Auphan et al teaches the branch paths are open at the other end sides toward a surrounding environment of the main path (fig. 1).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auphan et al in view of Drexel (Re. 31,570).

Regarding claim 8, Auphan et al fails to teach an auxiliary thermal flow sensor that is disposed in a portion where the branch paths are not formed, and detects a state of the fluid. Drexel teaches auxiliary thermal elements (50, 52), which are on the outside of the tube. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have used the thermal elements positioned on the

outside of the tube of Drexel in the apparatus of Auphan et al for the purpose of measuring the fluid passing through the tube (col. 4, lines 33-35)

Regarding claim 9, Auphan et al fails to teach the auxiliary thermal flow sensor is disposed in a fluid-pooling portion that communicates with the branch paths. Drexel teaches auxiliary thermal elements (50, 52), which are disposed in a fluid-pooling portion that communicates with the branch paths. It would have been obvious to one of ordinary skill in the art at the time that the invention was made to have used the thermal elements positioned on the outside of the tube and communicating with the branch paths of Drexel in the apparatus of Auphan et al for the purpose of measuring the fluid passing through the tube (col. 4, lines 33-35)

Allowable Subject Matter

5. Claims 2, 3, 5-7, 17, 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Claims 10-16, 20 and 21 are allowed.

7. The following is a statement of reasons for the indication of allowable subject matter: The references cited have failed to teach and to make obvious a fluid detecting device comprising: one or a plurality of branch paths each having an inflow-side

Art Unit: 2855

opening and an outflow-side opening end portion pointed toward a downstream side of the main path which are formed in the vicinity of an inner wall surface of the main path.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


4,381,668 Sato et al teaches a gas flow measuring apparatus comprising
bypass passage with thermal sensors.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jewel V. Thompson whose telephone number is 571-272-2189. The examiner can normally be reached on 7-4:30, telework on Wednesday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2855

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


JEWEL THOMPSON
PRIMARY EXAMINER
10/23/06

October 23, 2006